



Consumers Purchase Intention Towards: Electric Two-Wheelers

Dr.M.Geeta¹, P. Charan Sai², C. Rakesh Goud²

¹Associate Professor KLEF, KLHBS, KL University, Hyderabad

²Students, KLEF, KLHBS, KL University, Hyderabad Campus Y20 Batch.

²P. Charan Sai (2010560068), ²C. Rakesh Goud (2010560067)

ABSTRACT:

This paper discussed the consumer purchase intention towards electric two-wheeler. The whole world is finding ways to go green and environmentally friendly. Two-Wheelers causes higher pollution and fuel which is used in two wheelers causes harm to environment. The innovation of electric wheelers helps to avoid environmental pollution. The concept of electric two-wheeler to protect environment has increased demand for electric two wheelers. This paper develops the consumer purchase intention towards electric two wheelers. The study aimed to identify the factors influencing consumer purchase intention towards electric two wheelers.

The paper discusses the factors such as environmental concern, more sustainable, cheaper purchase cost, economic benefits, charging infrastructure has a great impact on consumers intention towards electric two-wheelers. The finding of this research shows that economic benefits have influenced most of the women and men to purchase electric two wheelers.

Based on the result this information is useful for electric two-wheeler-based companies to find out and understand the consumers purchase intention towards electric two-wheelers.

Introduction:

The project is titled as “A Study on Factors Influencing Consumer Purchasing Intention towards Electric Two-Wheelers”. Electric vehicles have gained popularity as an eco-friendly alternative to petrol powered vehicles owing to their zero carbon emissions. Compared to petrol-run two wheelers, electric two-wheelers are highly efficient, with less pollution and low noise levels. However, the usage of electric motorcycles is still in the initial stage, and customer acceptance of this new product still requires further research. The major problem of electric vehicles is their high cost of the battery, short driving range due to limited charging capacity, and a long recharging time. The purpose of this research was to develop an adoption model for electric two-wheelers. This research identified the factors that determine the intention to purchase electric two-wheelers from the literature review.

This study aims to find the factors influencing the consumer purchasing intention towards electric two-wheelers. The purpose of this research was to develop an adoption model for electric two-wheelers. The proposed model can be used to formulate suitable policies to speed up the purchase of electric two-wheelers. The proposed model can also be used to guide the companies selling electric two-wheelers. The government’s promoting the acceptance of EV will reduce pollution and the country’s oil import.

Objective of the Study

- To understand the factors influencing the consumer purchasing intension towards electric two-wheelers.
- To identify the benefits of using electric two-wheelers
- To study various factors involved in manufacturing of electric two-wheelers
- To study the sales of electric two-wheelers

Research Questions:

Study addresses the following research questions:

- To identify the variables affecting the purchase intention of consumers towards the electric 2-wheelers.
- To identify whether these variables have significant impact on purchase intention of consumers towards electric 2-wheelers.



Literature Reviews:

Electric vehicle (EV) adoption is one of the widely researched topics at present, and a good number of studies have been done on electric vehicle adoption. Potential electric vehicle purchasers view the higher cost, limited driving range, and time taken to recharge the battery as disadvantages compared to conventional vehicles. Many previous studies on EV revealed that consumers' adoption depends on psychological factors like attitudes, environmental concern, awareness, symbolism, self-identity, emotional responses, and diffusion of innovation. Habich-Sobiegalla et al. (2018) developed the research framework using both micro-level, macro-level, and product-level factors that influence purchase intention. Most of the previous research studies included socio-demographic characteristics and micro-, macro-, and product-level factors that affect intention to adopt EV. Some of the socio-demographic variables included in their study were age, gender, education, and environmental concerns. Habich-Sobiegalla et al (2018) surveyed 2806 participants from China, Brazil, and Russia. Their research findings show that micro-level factors like personal factors were less important than macro-level and product-level factors. Macro-level factors include EV charging infrastructure and government policy incentives. The battery life, purchase cost, driving range, and charging times were considered product-level factors.

Environment friendly feature of electric 2-wheeler significantly affects the purchase intention of consumers. Cost effectiveness feature of electric 2-wheeler significantly affects the purchase intention of consumers. High Charging time feature of electric 2-wheeler significantly affects the purchase intention of consumers. Consumer willingness to pay premium price for electric 2-wheeler significantly affects the purchase intention of consumers. Low maintenance charge feature of electric 2-wheeler significantly affects the purchase intention of consumers. Willingness to compromise speed towards electric 2-wheeler significantly affects the purchase intention of consumers. Safe as normal 2-wheeler feature of electric 2-wheeler significantly affects the purchase intention of consumers. Comfortability to switch to electric 2-wheeler significantly affects the purchase intention of consumers.



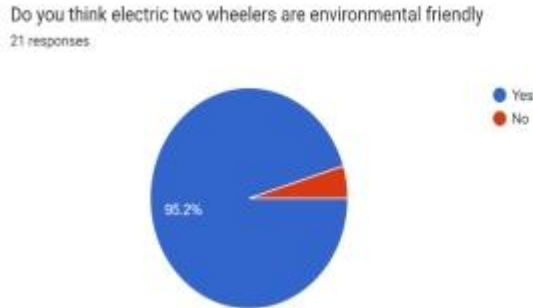
Methodology:

The study uses the descriptive and causal-comparative research design to deal with the factor influencing purchase intention of two-wheeler. Descriptive research is typically more formal and structured because it is based on large, representative samples and the data obtained are subjected to quantitative analysis. In this study, descriptive study is undertaken to ascertain and describe the characteristics of the variables that factor influencing purchase intention of two-wheeler consumers. The questionnaire was collected through Google form using social networking site and through filled physical questionnaires. In this study, the environmental concern, perceived economic benefits, social influence, charging Infrastructure, and attitude affect the intention to purchase electric two-wheelers.

Data Analysis and Interpretation:

The data collected for this research were primary data collected through online surveys to find the factors influencing the purchase of electric two-wheelers. The questionnaire was developed by examining various adoption scales and metrics mentioned in the literature.

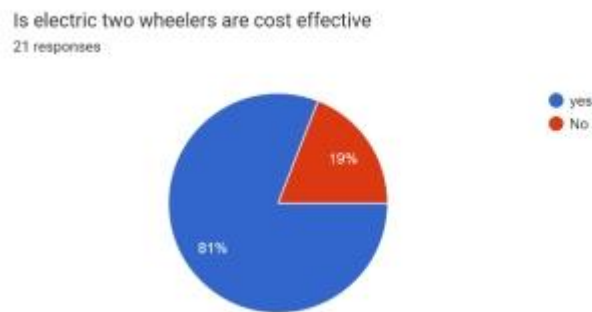
Graph 1



Interpretation:

95% of the people have agreed that electric two wheelers are environmental friendly and 5% of the people have not agreed

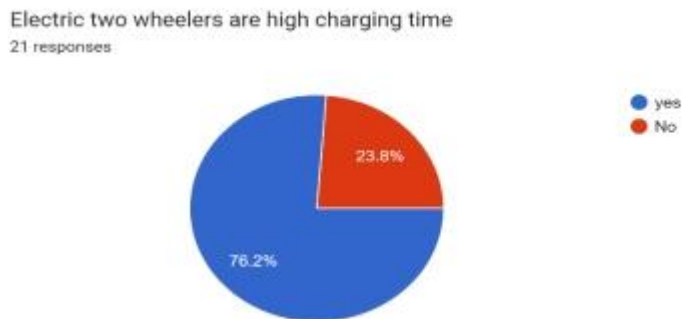
Graph 2:



Interpretation:

81% of the people have agreed that electric two-wheelers are cost effective and 19% of the people have not agreed.

Graph 3

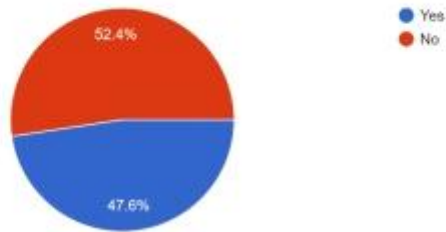


Interpretation:

76 % of the people have agreed that electric two wheelers are high charging time and 23% of the people have not agree.

Graph 4

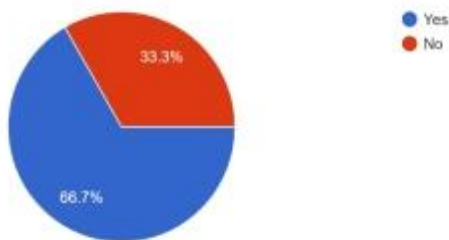
Would you like to pay premium price for electric two wheelers
21 responses

**Interpretation:**

52% of the people have not agreed to pay premium price for electric two wheelers and 47% of the people have agreed to pay

Graph 5

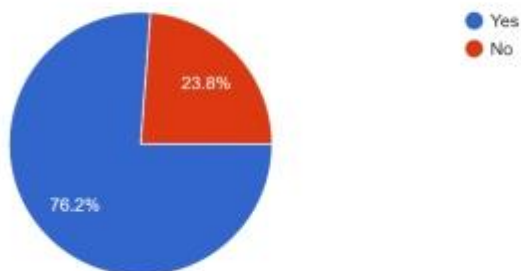
Do you think electric two wheelers have low maintenance charge
21 responses

**Interpretation**

66% of the people have agreed that electric two wheelers are low maintenance charge and 33% of the people have not agreed

Graph 6

Would you like to switch to electric two wheelers
21 responses

**Interpretation**

76% of the people have agreed to switch to electric two wheelers and 23% of the people have not agreed

Results and Discussion:

The questionnaire was distributed online and received 21, responses, helped to identify the factors that influenced consumer purchasing intention towards electric two wheelers such as Environment Friendliness, Cost Efficiency, High Charging Time, Willingness to Pay Premium, Low Maintenance Charge. Willingness to Compromise Speed. Safety as Compared to Normal 2- Wheeler, and Comfort to Switch to Electric 2-Wheeler on the Purchase Intention” of respondents towards Electric 2-Wheeler.

Environment friendly feature of electric 2-wheeler significantly affects the purchase intention of consumers.

Cost effectiveness feature of electric 2-wheeler significantly affects the purchase intention of consumers.

High Charging time feature of electric 2-wheeler significantly affects the purchase intention of consumers.

Consumer willingness to pay premium price for electric 2-wheeler significantly affects the purchase intention of consumers.

Low maintenance charge feature of electric 2-wheeler significantly affects the purchase intention of consumers.

Willingness to compromise speed towards electric 2-wheeler significantly affects the purchase intention of consumers.

Safe as normal 2-wheeler feature of electric 2-wheeler significantly affects the purchase intention of consumers.

Comfortability to switch to electric 2-wheeler significantly affects the purchase intention of consumers.

Conclusion:

This research aimed to study consumers’ intentions to purchase electric two- wheelers and tested the five influencing factors. Based on the literature study, we investigated the following factors: environmental concern, perceived economic benefits, social influence, charging infrastructure, and attitude.

Limitation:

The study also describes the disadvantages of electric two-wheelers such as

- Scarcity of charging outlets
- Untimely power cuts
- Limited repairing shops
- Parts not available easily
- Slow speed
- Long drive is tough

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